



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,877	11/05/2001	Hakan Ozdemir	99-S-190 (1678-22-1)	8286

30431 7590 03/07/2007
STMICROELECTRONICS, INC.
MAIL STATION 2346
1310 ELECTRONICS DRIVE
CARROLLTON, TX 75006

EXAMINER

MERCEDES, DISMERY E

ART UNIT	PAPER NUMBER
----------	--------------

2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/993,877	Applicant(s) OZDEMIR, HAKAN	
	Examiner Dismery E. Mercedes	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-7 is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-29 and 32 is/are rejected.
- 7) ☒ Claim(s) 30 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to RCE filed 7/27/2006.

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 1/3/2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.
2. The information disclosure statement (IDS) submitted on 2/9/2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1-4,8-13,25-28,32 are rejected under 35 U.S.C. 102(b) as being anticipated by Patapoutian et al. (US 5,661,760).

As to Claim 1, Patapoutian et al. discloses a storage disk, comprising: a disk sector having a beginning and operable to store data (see fig.2); and a servo wedge located at the beginning of the sector and operable without a zero-frequency field to identify the sector in conjunction with an initial positioning of a read-write head and a read of the data from or write of the data to the disk

Art Unit: 2627

sector (see fig.4, preamble and SAM and servo bursts for positioning of the read-write head and the dc erase field is optional).

As to Claim 2, Patapoutian et al. further discloses the sector includes a track that is operable to store the data; and the servo wedge is operable to identify the track during an initial positioning of a read-write head and during a subsequent read of the data from or write of the data to the track (see fig.4, "733-736").

As to claim 3, Patapoutian et al. discloses a disk comprising data sectors; servo wedges each detectable by a read head upon initial spin-up and identifying a respective data sector; and no zero-frequency spin-up fields associated with the servo wedges (see figs.2-4 and respective description thereof).

As to Claim 4, Patapoutian et al. further discloses the data sectors comprise tracks; and each servo wedge identifies and is located in a respective track (see figs.2-4 and respective description thereof).

As to Claim 8 Patapoutian et al. discloses disk sectors operable to store data; servo wedges located in the disk sectors and each having a respective location identifiers, respective position bursts, and a respective other portions, the other portions of each servo wedge substantially the same as the other portions of all the other servo wedges and detectable during an initial read-write head positioning; and no zero-frequency spin-up fields (see figs.2-4 and respective description thereof and col.6, lines 46-61, wherein the dc erase field is optional).

As to Claim 9-11, Patapoutian et al. further discloses wherein the other portions of each servo wedge include a preamble (as per claim 10) a synch mark (as per claim 11) a servo address mark (see fig.4 and col.1, lines 46-55).

As to Claim 12, Patapoutian et al. further discloses wherein the location identifier of each servo wedge is different from the location of another servo wedge (see fig.4 and respective description thereof, every servo wedge is uniquely identified).

As to Claim 13, Patapoutian et al. further discloses wherein position bursts each servo wedge is different from the position bursts of another servo wedge (see fig.4 and respective description thereof).

As to Claims 25-28 are method claims drawn to the apparatus of claims 1-4, and are rejected for similar reasons as set forth in the rejection of claims 1-4, above.

As to Claim 32, has limitations similar to those treated in the rejection of claim 1 are met by the reference as discussed above.

3. Claim 14-24,29 are rejected under 35 U.S.C. 102(b) as being anticipated by Tuttle et al. (US 6,108,151).

As to Claim 14, Tuttle et al. discloses: a data-storage disk having a surface, data sectors at respective locations of the surface, and servo wedges that each include respective servo data that identifies the location of a respective data sector; a motor coupled to and operable to rotate the disk; a read head operable to generate a read signal that represents the servo data and having a position with respect to the surface of the data-storage disk; a read-head positioning circuit operable to move the read head over the surface of the disk; and a servo circuit coupled to the read head and to the read-head positioning system, the servo circuit including, a servo channel operable to recover the servo data from the read signal, and a processor coupled to the servo channel and operable to detect one of the servo wedges while or after the disk attains an operating speed but before the servo channel recovers servo data from any other of the servo wedges (see figs.2-3 and 14 and col.4, lines

Art Unit: 2627

13-47 and col.15, line 12 – col.16, line 37, wherein while at a steady speed the detection of servo wedge is performed, but before obtaining the head positioning information).

As to claim 15, Tuttle et al. further discloses the servo channel is operable to recover the servo data from the detected servo wedge; and the servo circuit is operable to, determine an initial position of the read head from the recovered servo data, and provide the initial position to the read-head positioning circuit (see fig.2b-3 see col.4, lines 13-47; col.15, line 12 – col.16, line 37).

As to claim 16, Tuttle et al. further discloses wherein the servo channel is operable to recover the servo data from the detected servo wedge and to provide the location of the respective data sector to the read-head positioning circuit (see fig.2, wherein the location of the data sector can be obtained from the servo data “3”).

As to claim 17 Tuttle et al. further discloses the servo channel is operable to recover the servo data from the detected servo wedge and to provide the location of the respective data sector to the read-head positioning circuit; and the read-head positioning circuit is operable to determine an initial position of the read head from the location of the respective data sector (see fig.2b and col.4, lines 13-47 and col.15, line 12 – col.16, line 37).

As to claim 18 Tuttle et al. further discloses wherein the read-head position circuit and the servo circuit are unable to determine the position of the read head before the processor detects the one servo wedge (see fig.2b and respective description thereof and col.14, lines 25-32--wherein the positioning information of the read head is obtained through reading the data of the servo wedge)

As to claim 19 Tuttle et al. further discloses wherein the read head comprises a read-write head (see fig.2b and respective description).

As to Claims 20-24 have limitations similar to those treated in the rejection of claims 14-19 and are met by the reference as discussed in the rejection of claims 14-19 above.

Art Unit: 2627

As to Claim 29, Tuttle et al. further discloses writing a first servo wedge without a zero-frequency spin-up field onto a surface of a data-storage disk to define a first disk sector that is operable to store file data, the first servo wedge including first servo data that is operable to identify the first disk sector during an initial positioning of a head over the disk and during a read of file data from or a write of file data to the first disk sector; and writing a second servo wedge onto the surface of the data-storage disk to define a second disk sector that is operable to store file data, the second servo wedge including second servo data that is operable to identify the second disk sector during a read of file data from or a write of file data to the second disk sector (see fig.2-3 and col.6, lines 24-32; col.11, lines 6-24 and col.14, lines 16-40- first sector is detected during initial positioning of the head over the disk and then seeks for the next sector on the track).

Allowable Subject Matter

4. Claims 5-7 are allowed.

Independent claim 5 is allowable over the prior art since the cited references taken alone or in combination do not teach or suggest: servo wedges detectable without a zero-frequency field upon an initial spin-up located in the disk sectors and *each having a pre-synchronization-mark section with substantially the same bit pattern and length as the pre-synchronization-mark section of the other servo wedges; and no servo wedge having a pre-synchronization-mark section with a significantly different bit pattern or a significantly different length as compared to the pre-synchronization-mark section of the other servo wedges.*

5. Claim 30-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2627

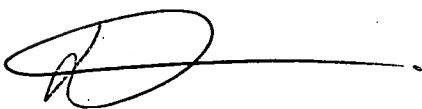
Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:: Glover (US 6,108,153); Kim (US 6,665,138); Lee (US 2002/0054444); Reed et al. (US 6,115,198); Fisher (US 5,384,671); Kuki et al. (US 2003/0055572); Emori (US 5,442,499); Ton-That (US 5,796,543); Erlich (US 6,519,107); Sun et al. (US 6,239,934); Deforest (US 6,327,105); Hull et al. (US 6,262,857); Squires et al. (US 4,979,055)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dismery E. Mercedes whose telephone number is 571-272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DM



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER